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MCDERMOTT, WILL & EMERY

March 8, 1999

VIA HAND DELIVERY

Ms. Magalie Roman Salas, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

RECEIVED
MAR 8 1999
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

**Re: In the Matter of Amendment of Parts 2 and 97 of the Commission's
Rules to Create a Low Frequency Allocation for the Amateur Radio
Service, RM-9404**

Dear Ms. Salas:

On behalf of Commonwealth Edison Company ("Com Ed"), transmitted herewith is an original and four copies of ComEd's Reply Comments in the above-referenced proceeding.

A "Return Copy" of this filing is also enclosed. Kindly date stamp the "Return Copy" and return it to the courier in the enclosed envelope.

If you have any questions regarding this filing, please do not hesitate to contact the undersigned counsel.

Respectfully submitted,



Carole C. Harris

Enclosures

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List A B C D E

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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Amateur Radio Service)	
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REPLY COMMENTS OF COMMONWEALTH EDISON

I. INTRODUCTION

Pursuant to Section 1.415 of the Rules of the Federal Communications Commission ("FCC" or "Commission"), Commonwealth Edison ("ComEd") through its undersigned attorney, respectfully submits these Reply Comments in response to the Public Notice regarding the Petition for Rulemaking filed by the American Radio Relay League, Inc. ComEd further requests that the Commission accept these late-filed Reply Comments. Many of the Comments and Reply Comments filed in this proceeding have been late-filed, and ComEd submits that there would be no adverse effect or prejudice that would result from consideration of the views expressed herein.

II. DISCUSSION

ComEd is a public electric utility that generates electricity and distributes it to more than 3.3 million customers representing 8 million people. Its extensive service area includes the Chicago metropolitan area as well as the northern fifth of the State of Illinois. In addition to its

conventional generation of power, ComEd is the nation's largest investor-owned provider of nuclear generated power, with 10 nuclear reactors serving customers throughout its operating territory.

ComEd has concerns that the allocation urged by the American Radio Relay League, Incorporated (“ARRL”) of the frequencies 135.7 to 137.8 kHz and 160 to 190 kHz for use by the Amateur Radio Service will cause interference to the Power Line Carrier (“PLC”) activities of electric utilities throughout the country. The ARRL requests an allocation of spectrum that is used extensively by utilities for the protection of their distribution and transmission systems.

The frequencies 10-490 kHz are used extensively to operate electric utility PLC systems on power transmission lines for communications essential to the reliability and security of electric service to the public, in accordance with Part 15 of the Commission’s rules. Under the rules, electric utilities that generate, transmit, or distribute electrical energy for use by the general public or by the members of a cooperative organization may operate PLC systems. To do so, the utility must supply certain technical information regarding the system to the Commission. The utility must notify the Commission, for instance, of the frequency, power, location of transmitter(s), location of receivers and other technical and operational parameters, that will permit determination of the system’s potential both to interfere with authorized radio users and to receive harmful interference from these users. PLC systems in this band operate on a noninterference basis to radio systems assigned frequencies by the NTIA or licensed by the Commission.

PLC systems are essential to the transmission and distribution of electric power. The allocation urged by the ARRL, however, would threaten the integrity of the high voltage power

system by causing interference that could result in power outages. The ARRL's Petition recognizes the potential for this type of interference, although it makes the claim that any such interference would not be likely to cause any interruption of the power grid or to cause other adverse effects. The ARRL also concludes that the potential for an amateur radio station to cause interference to PLC systems is "minimal."

ComEd disagrees. The ARRL's Petition, for instance, quotes from a survey of 150 utility engineers stating that interference to PLCs from unlicensed stations is not a significant problem. It is ComEd's position, however, that the allocation urged by the ARRL would *create* such a problem. Furthermore, the *effect* of any interference from the proposed allocation could be disastrous to the PLC systems of utilities throughout the nation.

Moreover, as noted by the Comments of the IEEE Power System Relaying Committee, the 2 watt EIRP limit proposed by the ARRL would be difficult for amateur operators to adhere to. Comments filed by amateur operators and by Texas Instruments note, for instance, that few if any amateur operators have the ability to calculate EIRP.¹ In addition, the ARRL proposes that no restrictions be placed on antenna size or design, citing the potential that experimentation would be stifled.² The ARRL, however, cites no support for this claim. Part 15 operations are currently subject to limits to antenna heights, any low frequency allocation for amateur operations should be similarly restricted.

The ARRL is incorrect in suggesting in its Petition that utilities are phasing out PLC systems in favor of fiber optic technologies. Rather, PLC activities remain the primary means for utilities to protect the integrity of the power systems. ComEd submits that the potential for

¹ See Comments of Philip E. Galasso; Comments of Texas Instruments at p. 3.

² See Reply Comments of the American Radio Relay League, Incorporated at p.4.

the proposed frequencies to cause interference with PLC systems nationwide is great. Contrary to the claim of the ARRL, forward error-correcting digital transmissions are not widespread in this context, and, therefore, the claim that these systems are “nearly immune” to interference is simply false.³

In addition, amateur operators would have no means of determining particular frequencies to utilize in order to prevent interference and no way of calculating the EIRP of their operations. PLC systems and their technical parameters are currently accessible by utilities through a Utilities Telecommunications Council (“UTC”) database, thereby permitting utilities to determine on which frequencies to operate. Allocation of a low frequency band as proposed by the ARRL, however, would disrupt this balance and undoubtedly cause interference to PLC operations.

Perhaps more importantly, it is the ramifications of any such interference that demonstrate clearly that the proposed allocation should be rejected. Power line carrier systems are essential to the distribution and transmission of electrical power. Short term outages and blackouts could result from interference with PLC systems, a result that would be directly contrary to the public interest. Accordingly, ComEd urges the Commission to reject the proposal of the ARRL and refrain from allocating the proposed frequencies for use by the Amateur Radio Service.

The ARRL has not demonstrated the need for a rulemaking proceeding to establish the proposed allocation and service rules. In the face of conflicting views regarding the potential for amateur operations in these bands to cause interference with power line carrier systems, it

³ See Petition for Rulemaking at p. 16, para. 23.

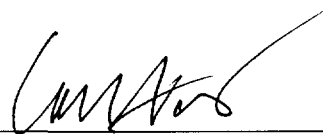
becomes the burden of the ARRL to demonstrate that no such interference will result.

Additionally, to justify the institution of a rulemaking proceeding, it is incumbent upon the ARRL to make a clear showing that the proposed allocation is necessary and in the public interest. The ARRL has done neither, and, accordingly, its Petition should be denied.

III. CONCLUSION

For the reasons set forth herein, ComEd respectfully urges the Commission to refrain from establishing any frequency allocation and service rules that will interfere with power line carrier activities of electric utilities. The proposed allocation would present an undue risk of interference to utilities' essential PLC activities, thereby threatening the reliability of the power delivery system in effect throughout the nation. This result would be directly contrary to the public interest, and, accordingly, the Petition of the ARRL should be rejected.

Respectfully submitted,



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Attorney for **COMMONWEALTH EDISON**

Dated: March 8, 1999

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the Reply Comments of Commonwealth Edison Company has been served on the parties listed below by first-class mail, postage prepaid, on this 8th day of March, 1999:

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